



# Sustainable Materials Management

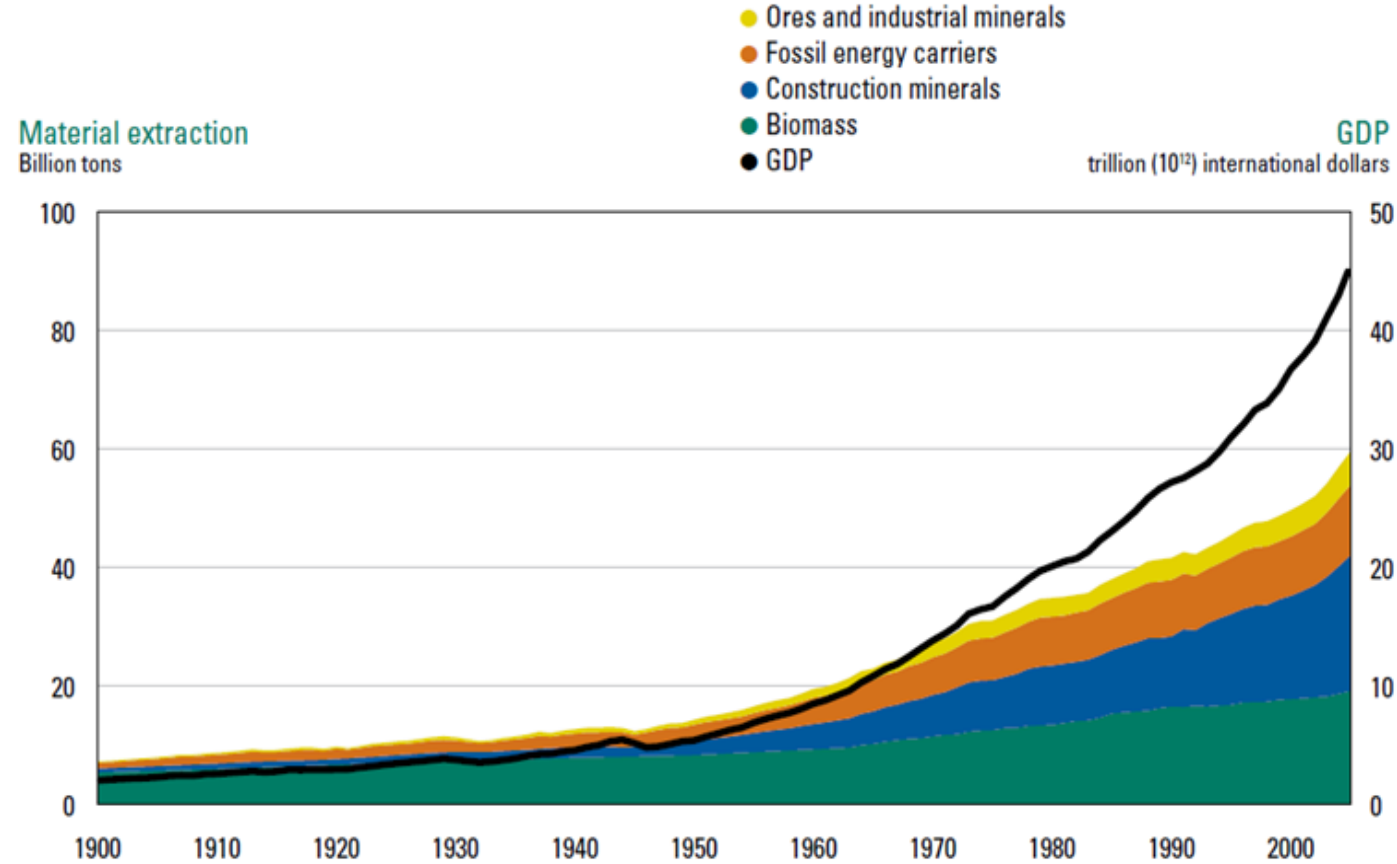
**Mathy Stanislaus, Assistant Administrator  
US EPA, Office of Solid Waste and Emergency Response  
Suppliers Partnership for the Environment Meeting  
May 21, 2015**

# Revised Definition of Solid Waste Incorporates SMM

- EPA's recycling regulations advance the principles of SMM by recognizing the economic incentives manufacturers have for materials reuse and recycling in their production process.
- Specifically, the recycling regulations facilitate in-process recycling, where materials are returned to the production process. In addition, the regulations favor commodity-grade recycled products, such as metals commodities.
- The regulation also recognize the potential of higher value solvents from one industry being remanufactured into similar high grade solvents in another industry.
- This regulation has an estimated future annual cost savings as high as \$59 million per year.
- The revised Definition of Solid Waste becomes effective on July 13.

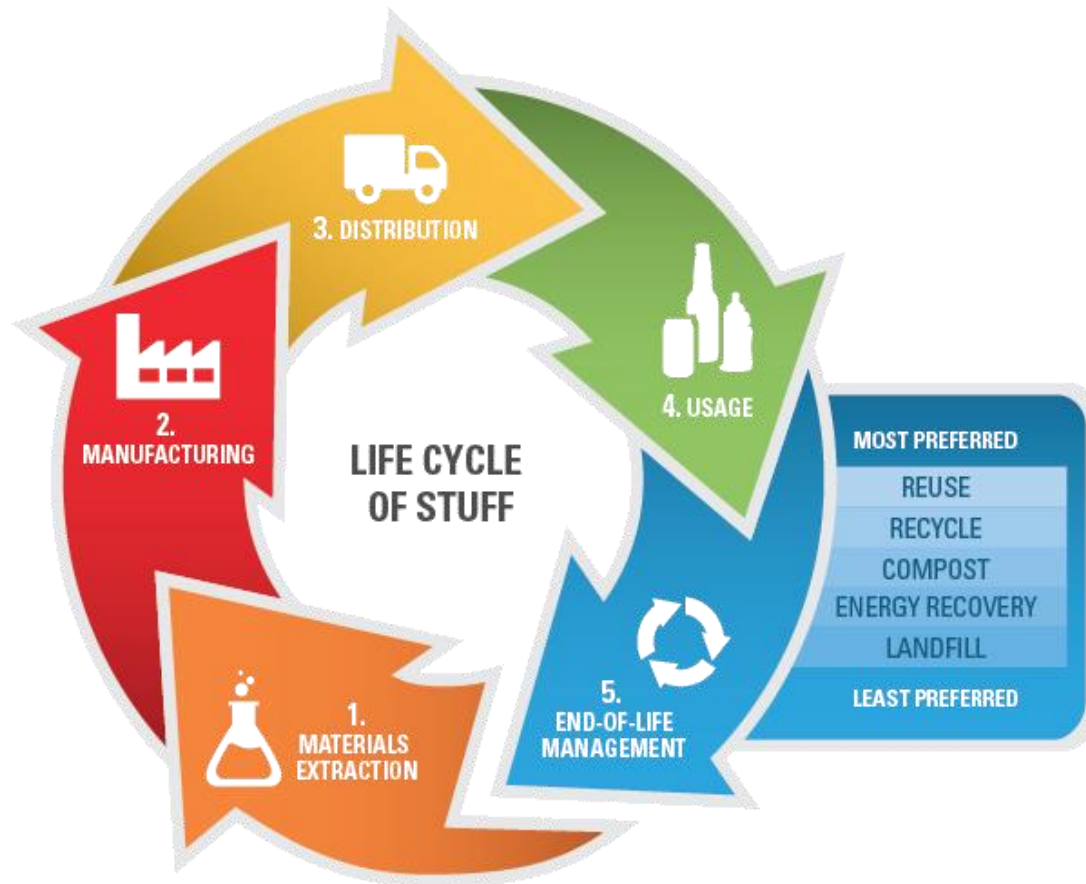
# Present Material Use-GDP Decoupling Insufficient

Figure 2. Global material extraction in billion tons, 1900–2005



Source: Krausmann *et al.*, 2009

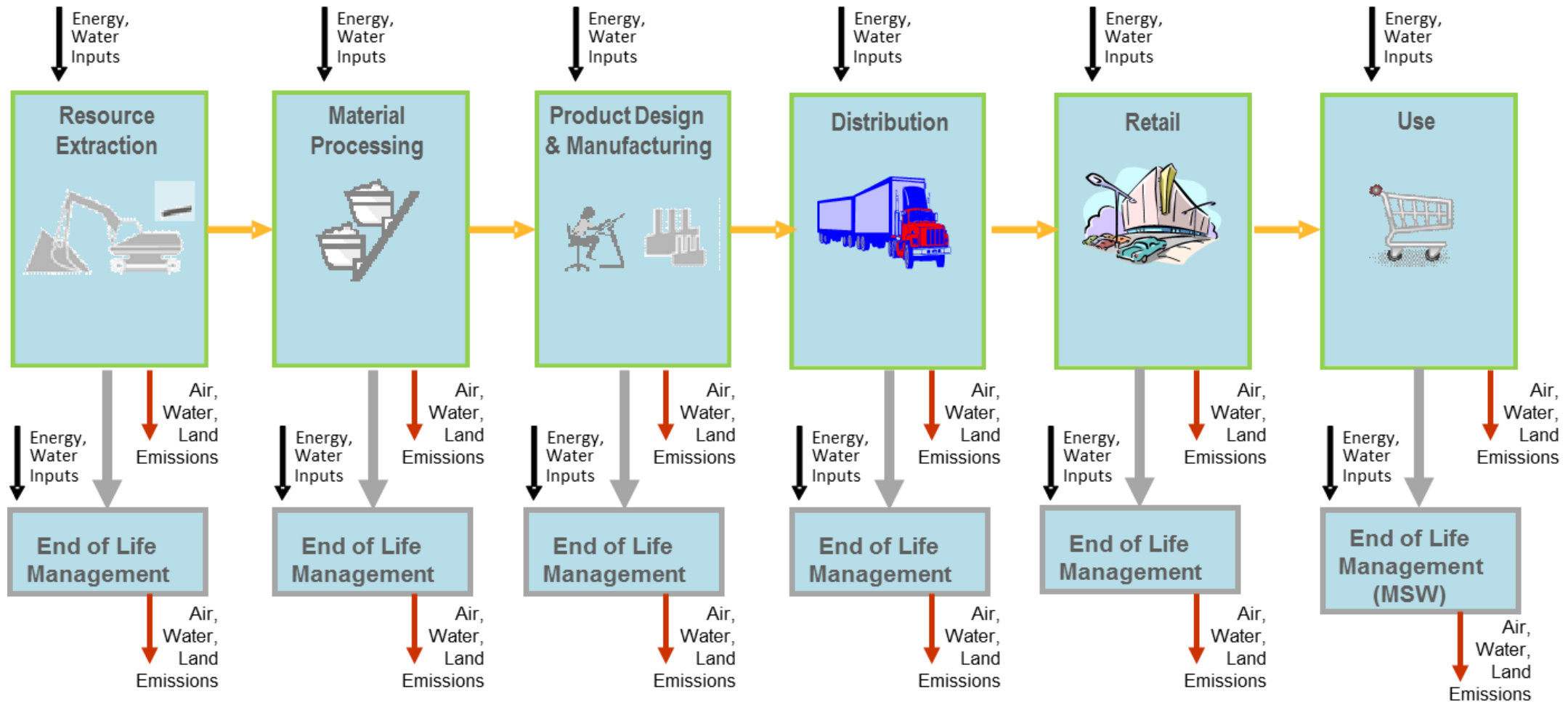
# What is Sustainable Materials Management?



*“An approach to serving human needs by using/reusing resources productively and sustainably throughout their life cycles, generally minimizing the amount of materials involved and all associated environmental impacts.”*

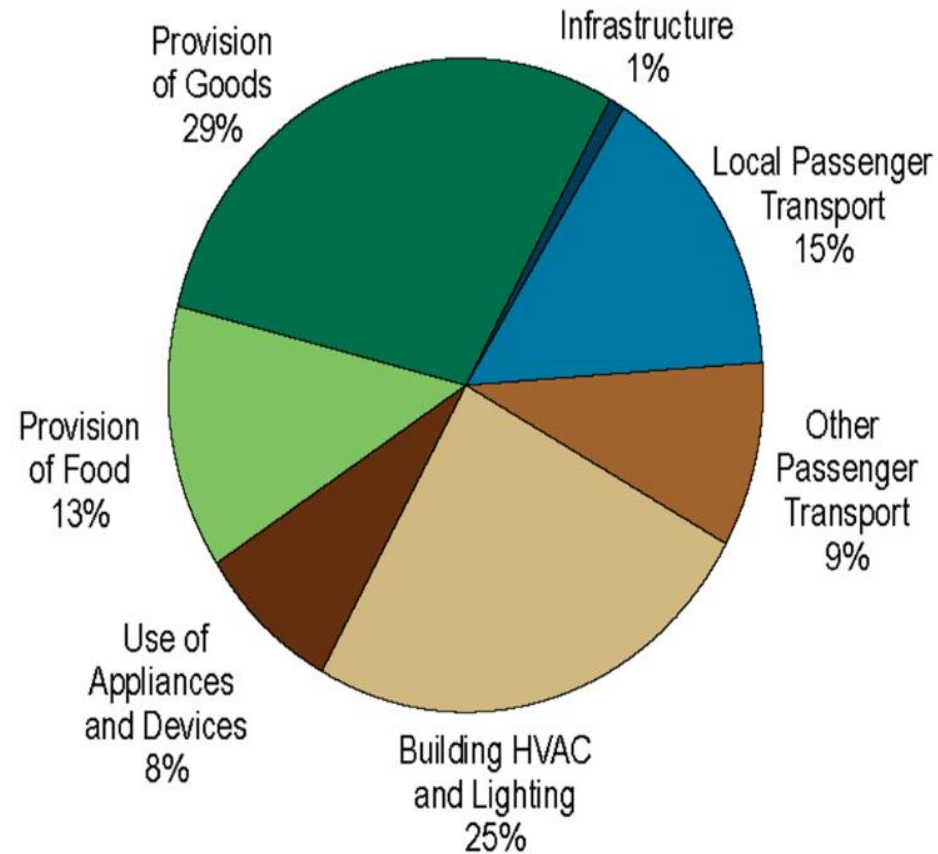
*Sustainable Material Management: The Road Ahead, EPA, 2009*

# What is SMM: Material/Product Life Cycle



Hidden material flows (i.e., wastes) account for up to 75% of the total materials moved, but are not accounted for in the gross domestic product.

# SMM Offers New Perspectives



## U.S. Greenhouse Gas Emissions

(Source: Opportunities to Reduce Greenhouse Gas Emissions through Materials and Land Management Practices 2009)

- **SMM offers new opportunities to address climate change:**
  - Materials Management is represented by the *Provision of Goods* and *Provision of Food*.
  - Accounting for 42% of U.S. GHG emissions.

# What is EPA doing?

- Measurement and Analysis
- Convening
- Procurement
- Regulatory Action

# Working With Industry

## **Recent conversations with U.S. industry representatives indicate EPA can do more to help:**

- Better define terms like recycling, recovery, disposal, and diversion, so all can understand and align more closely on our definitions and measures of success.
- Convene and educate stakeholders across all parts of the materials use and recovery process, to facilitate true life cycle based approaches.
- Open more communication channels and increase transparency in reporting so secondary materials markets and the businesses they spawn can be more efficient.

# In Summary:

## **Sustainable Materials Management (SMM) provides significant opportunities to:**

- Target work where environmental impacts are the greatest
- Build strong coalitions, communities and economies
- Provide national and international leadership
- Demonstrate measurable results